

CLAIMS

1. A reinforcing bar binding machine comprising:

5 a binding wire feeding mechanism, including a feeding motor for feeding out a binding wire, for feeding the binding wire to form a loop around reinforcing bars;

a clamping mechanism for clamping a front end of the binding wire;

10 a current detecting circuit for measuring a value of a current for driving the feeding motor; and

a control portion for controlling the feeding motor;

15 wherein the binding wire feeding mechanism is driven and reversely rotated for pulling back the binding wire and for winding the binding wire around the reinforcing bars, and the clamping mechanism is driven and rotated for twisting the binding wire and for binding the reinforcing bar,

20 wherein the current detecting circuit measures the value of the current for driving the feeding motor successively at each unit time in a step of pulling back the binding wire; and

wherein the control portion stops the feeding motor when a newest value of the drive current is increased by a predetermined amount from a lowest value of the drive current measured in the step of pulling back the binding wire.

25 2. The reinforcing bar binding machine according to Claim

1, further comprising:

a pulling back amount detecting portion for detecting
an amount of pulling back the binding wire,

wherein the feeding motor is stopped when a pulling
5 back amount reaches a reference value, in the step of pulling
back the binding wire.

3. The reinforcing bar binding machine according to Claim
1, further comprising:

10 a revolution number detecting sensor for detecting
a revolution number of the feeding motor; and

a timer for starting to measure a drive time,
simultaneously with starting the feeding motor,

wherein an amount of feeding the binding wire is measured
15 by the revolution number of the feeding motor detected by the
revolution number detecting sensor and the drive time measured
by the timer, in the step of pulling back the binding wire.

4. The reinforcing bar binding machine according to Claim
20 3, wherein the feeding motor is stopped when the time for driving
the feeding motor reaches a reference time of feeding the binding
wire, in the step of pulling back the binding wire.

5. The reinforcing bar binding machine according to Claim
25 3, wherein the feeding motor is stopped when the amount of
feeding the binding wire reaches a reference feeding amount,

in a step of feeding the binding wire.

6. The reinforcing bar binding machine according to Claim 1, further comprising:

5 a revolution number detecting sensor for detecting a revolution number of the feeding motor; and

a timer for starting to measure a drive time, simultaneously with starting the feeding motor;

wherein an amount of pulling back the binding wire
10 is measured by the revolution number of the feeding motor detected by the revolution number detecting sensor and the drive time measured by the timer, in the step of pulling back the binding wire.

15 7. The reinforcing bar binding machine according to Claim 6, wherein the feeding motor is stopped when the time of driving the feeding motor reaches a reference time of pulling back the binding wire, in the step of pulling back the binding wire.

20 8. The reinforcing bar binding machine according to Claim 6, wherein the feeding motor is stopped when an amount of pulling back the binding wire reaches a reference pulling back amount, in the step of pulling back the binding wire.

25 9. The reinforcing bar binding machine according to Claim 1, wherein a predetermined length of the binding wire is fed

out by driving the feeding motor, after the step of pulling back the binding wire.

10. The reinforcing bar binding machine according to Claim
5 1, wherein a reference time of pulling back the binding wire is shorter than a reference time of feeding the binding wire, and a reference pulling back amount of the binding wire is smaller than a reference feeding amount of the binding wire.

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